

AMENDMENTS TO THE CLAIMS

The listing of claims below will replace all prior versions and listings of claims in this application.

Listing of Claims:

Please amend the claims as follows:

1-14. (cancelled)

15. (currently amended) A process for making a shaped article of manufacture from a sheet or roll of a thermoplastic material, wherein the thermoplastic material consists essentially of a virgin thermoplastic material admixed with a previously foamed thermoplastic material, wherein the virgin material and the previously foamed thermoplastic material are of the same chemical composition, and wherein the previously foamed thermoplastic material is in an amount that ranges from about 5% to about 100% by weight of the thermoplastic material, the process comprising at least the following steps:

(a) pressurizing the sheet or roll of the thermoplastic material with a plasticizing gas under a selected pressure and period of time sufficient to yield a reversibly plasticized thermoplastic material, the plasticized thermoplastic material being impregnated with the plasticizing gas;

(b) depressurizing the plasticized thermoplastic material to thereby desorb some of the plasticizing gas from the plasticized thermoplastic material to thereby yield a partially desorbed plasticized thermoplastic material;

(c) partially foaming the partially desorbed plasticized thermoplastic material to yield a plasticized and partially foamed thermoplastic material; and

(ed) thermoforming-foaming, while in a thermoforming mold, the plasticized and partially desorbed-plasticized ~~foamed~~ thermoplastic material into the shaped article of manufacture, wherein the step of thermoforming-foaming occurs before the impregnated plasticizing gas concentration falls below about 0.5 percent by weight of the plasticized and partially foamed thermoplastic material, and wherein the plasticized and partially foamed thermoplastic material is additionally foamed by an amount ranging from 2% to 30%.

16. (previously presented) The process of claim 15 wherein the thermoplastic material consists essentially of polyethylene terephthalate (PET).

17. (previously presented) The process of claim 16 wherein the plasticizing gas is carbon dioxide (CO₂).

18. (previously presented) The process of claim 17 wherein the shaped article has a width to depth ratio of greater than about 1:1.

19. (cancelled)

20. (cancelled)

21. (cancelled)

22. (cancelled)

23. (previously presented) The process of claim 15 wherein the shaped article of manufacture has an outer skin layer and a foamed interior.

24. (previously presented) The process of claim 15 wherein the shaped article of manufacture is a cup having a wall angle of less than about 35 degrees from vertical.

25. (previously presented) The process of claim 15 wherein the selected pressure ranges from about 0.345 MPa to about 17.2 MPa, and the selected period of time ranges from about 3 hours to about 100 hours.

26. (cancelled)

27. (cancelled)

28. (previously presented) The process of claim 15 further comprising, after the step of thermoforming-foaming, a step of additional heating to thereby increase the crystallinity level of the shaped article of manufacture.

29. (cancelled)